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GUIDELINES FOR PLANNING AND CONDUCTING COOPERATIVE WORK EXPERIENCE PROGRAMS IN VOCATIONAL AGRICULTURE, A DIGEST OF A PH.D. DISSERTATION. RESEARCH SERIES IN AGRICULTURAL EDUCATION.

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THE SPECIFIC OBJECTIVES OF THE STUDY WERE TO--(1) IDENTIFY AND EVALUATE GUIDELINES, (2) COMPARE TEACHER AND PROGRAM CHARACTERISTICS IN DISTRIBUTIVE, TRADE AND INDUSTRIAL, AND AGRICULTURAL EDUCATION WITH COOPERATIVE WORK EXPERIENCE PROGRAMS, (3) DETERMINE SITUATIONAL FACTORS AND CHARACTERISTICS THAT INFLUENCE THE IMPORTANCE ASSIGNED TO GUIDELINES, AND (4) COMPARE THE IMPORTANCE ASSIGNED TO ACTIVITIES AND PROCEDURES ASSOCIATED WITH COOPERATIVE PROGRAMS. A TOTAL OF 317, 83 PERCENT, OF THE ELIGIBLE RESPONDENT TEACHERS, USING A FIVE-POINT SCALE, RATED THE IMPORTANCE OF 18 GUIDING STATEMENTS AND IMPLEMENTATION PROCEDURES. MEAN RATINGS OF TEACHERS IN THE THREE VOCATIONAL EDUCATION GROUPS RANKED THE STATEMENTS AND PROCEDURAL ITEMS IN THE FOLLOWING ORDER OF IMPORTANCE--(1) COORDINATION, (2) STUDENT SELECTION, (3) PROGRAM PROMOTION, (4) STUDENT EVALUATION, (5) TEACHER-COORDINATOR VISITATION, (6) INSTRUCTIONAL MATERIALS, (7) TRAINING STATION SELECTION, (8) RECORDS AND REPORTS, (9) CLASSROOM INSTRUCTION, (10) PROGRAM EVALUATION, (11) POLICY, (12) FACILITIES, (13) EMPLOYER OBLIGATION, (14) FOLLOWUP, (15) TRAINING PLANS, (16) SURVEYS, (17) SCHOOL-EMPLOYER AGREEMENTS, AND (18) ADVISORY COMMITTEES. THE STATEMENTS WERE OF SIMILAR IMPORTANCE REGARDLESS OF THE VOCATIONAL SERVICE PROVIDING THE TRAINING. ALTHOUGH CERTAIN FACTORS AND CHARACTERISTICS INFLUENCED TEACHER'S RATINGS OF THE STATEMENTS, THEY SIGNIFICANTLY INFLUENCED ONLY A SMALL NUMBER. RECOMMENDATIONS CONCERNED EXPANDING COOPERATIVE TRAINING TO PROVIDE EXPERIENCE IN OFF-FARM AGRICULTURAL OCCUPATIONS, DEVELOPING AN EVALUATION DEVICE BASED ON THE GUIDING STATEMENTS, AND IMPROVING TEACHER PLANNING AND PERFORMANCE. THE COMPLETE DISSERTATION BY B. HAROLD ANDERSON IS AVAILABLE AS 66-9995 FOR $3.75 ON MICROFILM AND FOR $13.05 AS XEROXED COPY FROM UNIVERSITY MICROFILMS, INC., 300 NORTH ZEEB ROAD, ANN ARBOR, MICHIGAN 48106. (JM)

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(RESEARCH SERIES IN AGRICULTURAL EDUCATION)

A Digest of a Ph.D. Dissertation

GUIDELINES FOR PLANNING AND CONDUCTING COOPERATIVE WORK EXPERIENCE PROGRAMS IN VOCATIONAL AGRICULTURE

by

B. Harold Anderson and Ralph E. Bender

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GUIDELINES FOR PLANNING AND CONDUCTING COOPERATIVE WORK EXPERIENCE PROGRAMS IN VOCATIONAL AGRICULTURE

Agricultural educators have long recognized the need and value of adequate occupational experience. Students enrolled in vocational agriculture have completed production projects on their home farms or have been placed on farms or ranches to gain occupational experience. The response for training in off-farm agricultural occupations, as identified in the Vocational Education Act of 1963, has created the need for extending the occupational experience phase of the program to include the placement of students in agricultural businesses and industries. As the number of programs in the high schools and area schools designed to offer training in off-farm agricultural occupations increases, the problems associated with providing adequate occupational experience are likely to increase. In many of these schools, occupational experience can best be provided through a cooperative work experience program. "A program of keeping youth in school and providing them with work experience and the type of training they can absorb seems to be one of the best methods our society can offer today to develop youth."[1]

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[1]Evelyn Murray, "Work: A Neglected Resource for Students," The Personnel and Guidance Journal, XLI (November, 1962), p. 233.

The philosophy and concepts of cooperative work experience are quite similar to those of the traditional "placement for farm experience." However, the placement of students in agricultural businesses and industries involves some facets which are not common to the placement of students on farms or ranches.

With the above considerations in mind, the major focus of this study was aimed at developing guidelines to help local teachers and administrators in planning and conducting cooperative work experience in off-farm agricultural occupations.

Purpose of the Study

The ultimate purpose of this study was to develop guidelines for use in planning and conducting cooperative work experience in vocational agriculture programs providing training in off-farm agricultural occupations.

Objectives of the Study

The following specific objectives were identified to guide the direction of the study:

1. To identify and evaluate guidelines for planning and conducting cooperative work experience programs in vocational agriculture.

2. To compare the characteristics of teachers and programs in distributive, trade and industrial, and agricultural education with students placed in cooperative work experience.

3. To determine selected situational factors and characteristics that influence the importance assigned to broad guidelines for planning and conducting cooperative work experience.

4. To compare the degree of importance assigned to activities and procedures associated with cooperative work experience by teachers from various vocational services.

Need for Study

The need for this study was predicated on the following points:

1. The objectives and scope of vocational agriculture have changed.

2. Adequate occupational experience is an essential part of programs providing training in off-farm agriculture.

3. Occupational experience in off-farm agricultural occupations can be provided by means of a cooperative work experience program.

4. The number of students enrolled in off-farm agricultural occupations training in vocational agriculture will undoubtedly increase in the future.

5. There is a need for more research and study concerning ways of providing occupational experience in off-farm agricultural occupations.

Basic Assumptions

Several basic assumptions were made at the initiation of this study:

1. Many of the procedures and activities employed by the vocational agriculture teachers now utilizing cooperative work experience in off-farm agricultural occupations will be of a recurring nature that would be beneficial to the successful development of future programs, and specific guidelines can serve to improve the planning and conducting of these future programs.

2. Many of the procedures employed by other vocational education services in planning and conducting cooperative work experience would be applicable to vocational agriculture.

3. The teachers involved in the study could indicate, by the aid of an instrument, the degree of emphasis which should be given to certain procedures and activities associated with cooperative work experience.

4. Many of the problems, activities, and procedures of cooperative work experience employed by other vocational services, as described in the literature, would serve as a basis for the development of a tentative instrument to determine the guiding statements and operational procedures for planning and conducting cooperative work experience programs in vocational agriculture.

Limitations of the Study

The investigator was cognizant of the following limitations.

1. This study was limited in that the training for off-farm agricultural occupations in vocational agriculture was relatively new and the number of schools offering this type of training was limited.

2. The time available and the geographic location of the programs imposed a limitation in that the investigator was not able to visit all the schools personally.

3. The nature of new or pilot programs in vocational agriculture imposed a limitation in that the actual operation and administration of the various programs accounted for considerable diversity among the different schools involved.

4. This study was limited in that only the teacher in charge of the program was involved and no attempt was made to identify items that were entirely administrative in nature.

5. This study did not attempt to determine the various methods that can be employed to carry out some of the recommended guidelines, but only identified the desirable guidelines that may be used.

6. Additional limitations associated with the use of written survey instruments are:

A. The extent to which the respondents represented the universe of the study.

B. The extent to which the instrument failed to include all the guidelines or resulted in inaccurate data due to difference in interpretation.

C. The degree to which the respondents evaluated the guidelines without bias.

Method of Investigation

The following is a review of the method utilized in conducting this study.

After the purpose and specific objectives had been determined, the respondents to be included in the study were identified. This was accomplished by requesting each state supervisor of vocational agriculture to list the names of the teachers in his state conducting programs providing cooperative work experience in off-farm agriculture. The names of teachers from distributive and trade and industrial education were secured by requesting approximately twenty state supervisors in each of these services to submit the names of five teachers

who were conducting outstanding cooperative work experience programs in their respective vocational service.

During the time the names of the respondents were being secured, a survey instrument was developed. An extensive review of the literature enabled the writer to identify eighteen guiding statements for planning and conducting cooperative work experience which provided the framework of the survey instrument. Procedures for implementing the guiding statements were included in the survey instrument. Teachers were requested to record the importance of the guiding statements and the procedural items using a five-point scale.

Survey instruments were returned by vocational agriculture teachers representing 44 states, distributive education teachers representing 20 states, and trade and industrial education teachers representing 17 states. A total of 317 teachers or 83 per cent of the total eligible respondents returned usable survey instruments.

The data was analyzed utilizing an IBM 794 computer. Mean ratings were determined on each of the guiding statements and procedural items for each of the groups of teachers. The standard deviation of the responses of the teachers was computed. The F test was administered to determine if significant differences occurred in the ratings of the three groups of teachers. The multiple regression analysis technique was utilized to determine the relative influence of the situational factors on the teachers' ratings of the guiding statements.

SELECTED DATA CONCERNING THE CHARACTERISTICS OF THE TEACHERS AND PROGRAMS INCLUDED IN THE STUDY

During the process of formulating guidelines for cooperative work experience programs in vocational agriculture, it was realized that the diversity in the characteristics of individual teachers and programs would have a bearing on the utilization of the guidelines on the local level. Since teachers from three vocational services were involved, it was assumed there would be differences in the characteristics of the teachers and the programs included in this study.

It also seemed logical to assume that these differences may have an effect upon the teachers' rating of the guiding statements and procedural items. A presentation of selected data on the three groups of teachers included in the study enables the reader to become familiar with the more important characteristics and situational factors of the teachers and programs represented. This background information will also enable the reader to develop an understanding of the reasons why there may be differences in the importance assigned by the three groups of teachers to various items associated with cooperative work experience.

Teaching experience.--The teaching experience of the respondents from each of the vocational services was similar with teachers ranging from one year to over seventeen years of experience in each of the vocational services.

Occupational experience.--The percentage of vocational agriculture teachers with no occupational experience other than farming or ranching was 33.9. This compared to 5 per cent of the distributive education teachers and none of the trade and industrial education teachers with no occupational experience.

Population of town program was located in.--The percentage of vocational agriculture programs located in towns under 10,000 population was 65.8. This compared to 15.2 per cent for the distributive and 18.7 per cent for the trade and industrial programs.

Distance to town over 10,000 population.--Over one-half of the programs in all the services located in towns smaller than 10,000 population were 20 miles or more from a town with at least 10,000 inhabitants.

High school enrollment.--The percentage of distributive education programs located in schools with 1,750 or more students enrolled was 41.8. This compared to 25.7 per cent of the trade and industrial programs and only 10.6 per cent of the vocational agriculture programs.

Number and grade of students placed in cooperative work experience.--The average number of students placed in cooperative work experience by the distributive and trade and industrial education teachers was 39.8 and 39.3, respectively. This compared to 8.7 students per teacher for vocational agriculture programs. Of the vocational agriculture students placed, 17.4 per cent were sophomores while the distributive and trade and industrial percentage for the same grade was .4 and 1.3, respectively.

Number of years cooperative experience has been provided by the school.--Forty-five per cent of the vocational agriculture programs had been in operation for only one year while 65.8 per cent of the distributive and 76.3 per cent of the trade and industrial programs had been in operation nine years or more.

Total number of months employed.--The percentage of the distributive education teachers who were employed for a full twelve-month period was 15.9 while 57.8 per cent of the trade and industrial and 84.2 per cent of the vocational agriculture teachers were contracted by the school on a full-year basis.

Number of weeks per year students were placed for on-the-job experience.--For both the distributive and trade and industrial services, 98.6 per cent of the programs had students work on-the-job an average of at least thirty weeks per year. This corresponds to 62.4 per cent of the vocational agriculture programs requiring students to work for this period of time.

Average number of minutes available to work at the training station during school hours.--All of the distributive and trade and industrial programs provided at least thirty minutes per day of school time to enable students to work at the training station. Whereas, 26.7 per cent of the vocational agriculture programs provided less than thirty minutes.

Method used for providing classroom instruction.--One hundred per cent of the trade and industrial and 98.8 per cent of the distributive education programs utilized a regularly scheduled period to provide related classroom instruction. The percentage of vocational

agriculture programs utilizing this method was lower since 20.8 per cent of the teachers reported they provided instruction by means of an individual conference.

Average number of hours worked per week.--The percentage of distributive and trade and industrial programs having students average at least 15 hours per week at the training station was 97.2 and 98.6, respectively. This corresponds to 62.4 per cent for the vocational agriculture programs.

Length of the classroom instruction period.--There was no apparent difference in the length of the classroom instruction period provided by programs representative of the three services. Most schools apparently allocated one period per day for related instruction.

Minimum wage received by students.--A considerable range was reported in the minimum wage received by the students in all the programs represented. However, 8.1 per cent of vocational agriculture teachers reported that their students received no wage. This compared with 4.1 per cent of the trade and industrial and none of the distributive education teachers who reported the same for their programs.

Maximum wage received by students.--The most common maximum wage received by students from each of the vocational services represented was from $1.25 to $1.49 per hour. Approximately 3 per cent of the teachers in each of the services reported some of their students were receiving $2.50 or more per hour.

Number of students required to complete student-learner certificates.--Seventy-three per cent of the vocational agriculture teachers reported none of their students were required to complete student-learner certificates. The other two services had more

programs requiring at least some of their students to complete these certificates since 31.3 per cent of the distributive and 21.3 per cent of the trade and industrial education teachers recorded none of their students were in this category.

Utilization of selected procedures associated with conducting cooperative work experience.--Following is the percentage of teachers from all the combined groups utilizing selected procedures:

Procedure	Percentage Utilizing
Student Follow-Up After Graduation	85.8
Student Selection Standards	81.3
Written Training Plans	78.1
Training Station Selection Standards	76.0
Yearly Program Evaluation	74.7
School Time for On-the-Job Instructor Visits	74.0
Students Allowed to Work During School Hours	73.1
Written Training Agreements	70.5
Written Policy Statement	69.4
Advisory Committee	50.4
Yearly Community Survey	35.1
Students Members of Unions	25.6

The original study on file at The Ohio State University presents a detailed analysis of the various characteristics of the teachers and programs included in the study.

THE INFLUENCE OF SELECTED SITUATIONAL FACTORS AND CHARACTERISTICS UPON THE TEACHERS' RATING OF THE GUIDING STATEMENTS

One of the objectives of this study was to determine the degree to which selected characteristics and factors influence the teachers' rating of the guiding statements. During the development of the survey instrument, an attempt was made to identify those characteristics and factors which might influence the teachers' ratings. Such items as the teachers' experience, the locations or setting in which the program was operating, the teachers' utilization of selected procedures associated with conducting work experience programs, and the vocational service represented by the teachers were identified prior to the final adoption of the survey instrument.

A preliminary analysis conducted by the Statistical Laboratory at The Ohio State University indicated that twenty of these previously identified items received sufficient response to be included as independent variables. These, then, became the independent variables (X) which could be tested for their influence on the guiding statements or dependent variables (Y). The regression analysis technique was chosen as the statistical model to use to determine the degree of influence of these variables.

Following is a list of the situational factors and the number of guiding statements that were influenced by the independent variables based on a .05 level of confidence.

(An indication of the effect of each of the independent variables on specific guiding statements can be gained by reviewing the original study.)

Independent Variable	Number of Statements Significantly Influencing
Written Training Plans	9
Written Training Agreements	4
Distributive Education Teacher	3
Trade and Industrial Education Teacher	3
Number of Years Cooperative Experience Had Been Provided	3
Definite Policies for Selecting Training Stations	3
Students Permitted to Work During School Hours	2
Utilization of an Advisory Committee	2
Written Policy Statement	2
Yearly Community Survey	2
Years Teaching Experience	1
Population of Town	1
High School Enrollment	1
Students Members of Unions	1
Student Follow-Up After Graduation	1
Years of Occupational Experience	0
Months Teachers Are Employed	0
Student Selection Procedures	0
Yearly Program Evaluation	0
Definite Budget	0

GUIDELINES FOR PLANNING AND CONDUCTING COOPERATIVE WORK EXPERIENCE IN OFF-FARM AGRICULTURE

The following presents an analysis of the ratings of guiding statements for planning and conducting cooperative work experience and procedural items associated with each of these statements by distributive, trade and industrial, and agricultural teachers conducting cooperative work experience programs.

Since little previous research has been conducted by agricultural educators concerning planning and conducting cooperative work experience, the guiding statements were formulated by relying on the writer's experience working with programs utilizing cooperative work experience in vocational agriculture and by reviewing the research and literature on this subject.

An analysis of the teachers' ratings of the guiding statements is presented in Table 1.

In referring to the mean scores in the table, the reader is reminded that the following scale was used in assigning an importance rating:

Of Extreme Importance	Of Considerable Importance	Of Some Importance	Of Limited Importance	Of No Importance
4	3	2	1	0

TABLE 1.--Teachers' ratings of guiding statements for planning and conducting cooperative work experience programs

Guiding Statement	Teachers' Mean Rating				Standard Deviation	F
	Distributive[a]	Trade and Industrial[b]	Agriculture[c]	Combined Groups		
A concerted effort should be exerted by the teacher-coordinator to insure that the interest of both the student and the employer is considered when a student is placed for employment in a training station.	3.75	3.78	3.70	3.73	.45	1.60
The school should have a definite plan for screening and selecting students that conforms to local school policies, satisfies cooperating employers, and meets student needs.	3.82	3.83	3.62	3.72	.51	3.24[d]

[a] N = 67

[b] N = 60

[c] N = 130

[d] Significant at the .05 level of confidence.

TABLE 1.--Continued

Guiding Statement	Teachers' Mean Rating				Standard Deviation	F
	Distributive[a]	Trade and Industrial[b]	Agriculture[c]	Combined Groups		
Systematic and comprehensive efforts should be made to promote the program to students, school personnel, and the public.	3.82	3.75	3.61	3.70	.50	2.35
Achievement in both classroom related instruction and performance on the job should be considered in evaluating students.	3.87	3.72	3.58	3.69	.59	1.96
The teacher-coordinator should have an organized and systematic plan for visiting students at their training stations so that related classroom instruction can be correlated with on-the-job training.	3.69	3.72	3.66	3.68	.54	.48

[a] N = 67

[b] N = 60

[c] N = 130

TABLE 1.--Continued

Guiding Statement	Teachers' Mean Rating				Standard Deviation	F
	Distributive[a]	Trade and Industrial[b]	Agriculture[c]	Combined Groups		
The school should provide sufficient instructional materials to supplement the teaching of related classroom instruction and reference material related to the areas of work in which students are being trained.	3.73	3.87	3.54	3.67	.53	2.64
A well planned and systematic method of selecting training stations which considers definite standards and criteria should be employed to insure the best possible training environment for the student.	3.69	3.63	3.66	3.66	.54	.41

[a] N = 67

[b] N = 60

[c] N = 130

TABLE 1.--Continued

Guiding Statement	Teachers' Mean Rating				Standard Deviation	F
	Distributive[a]	Trade and Industrial[b]	Agriculture[c]	Combined Groups		
Certain records and reports should be kept to help insure sound operation of a vocational cooperative work experience program.	3.70	3.72	3.61	3.66	.52	.81
The related classroom instruction should be organized and planned so as to provide the information and experience which is not taught on the job and is necessary for students to progress in the various occupations.	3.67	3.80	3.54	3.63	.54	1.70
The vocational cooperative work experience program should practice a continuous and planned program of evaluation.	3.66	3.62	3.60	3.62	.59	.16

[a]N = 67

[b]N = 60

[c]N = 130

TABLE 1.--Continued

Guiding Statement	Teachers' Mean Rating				Standard Deviation	F
	Distributive[a]	Trade and Industrial[b]	Agriculture[c]	Combined Groups		
A written local policy statement should be developed to help in administering cooperative work experience.	3.60	3.42	3.57	3.54	.65	1.01
Adequate and appropriate facilities are essential and should be made available in schools conducting vocational cooperative work experience programs.	3.69	3.68	3.39	3.54	.71	1.00
Employers should have the responsibility of providing adequate and timely instruction and supervision of the student while they are working in the training station.	3.46	3.63	3.40	3.47	.70	2.45

[a] N = 67

[b] N = 60

[c] N = 130

TABLE 1.--Continued

Guiding Statement	Teachers' Mean Rating				Standard Deviation	F
	Distributive[a]	Trade and Industrial[b]	Agriculture[c]	Combined Groups		
The school maintains an organized system of "following up" cooperative work experience students after graduation.	3.58	3.42	3.35	3.42	.77	3.42[d]
A written training plan which lists the learning activities the student should engage in at the training station should be developed to serve as a guide to the employer in offering on-the-job instruction and to the teacher-coordinator in planning and teaching related instruction.	3.22	3.50	3.48	3.42	.77	.22

[a]N = 67

[b]N = 60

[c]N = 130

[d]Significant at the .05 level of confidence.

TABLE 1.--Continued

Guiding Statement	Teachers' Mean Rating				Standard Deviation	F
	Distributive[a]	Trade and Industrial[b]	Agriculture[c]	Combined Groups		
A survey of the appropriate businesses and firms in the community should be conducted before students are placed in training stations.	3.37	3.15	3.52	3.40	.76	1.43
A written agreement between the school and the employer which lists specific responsibilities of the parties or individuals involved should be developed for students placed in cooperative work experience.	2.97	3.48	3.42	3.32	.95	2.94
An advisory committee should be organized to give guidance and direction to the teacher coordinator.	3.10	3.00	3.03	3.04	.65	1.01

[a] N = 67

[b] N = 60

[c] N = 130

The F test was chosen to determine if there were significant differences in the ratings of the three groups of teachers. The following values are needed to indicate a significant difference: 3.04 for the .05 level of confidence and 4.71 for the .01 level of confidence.

The high degree of agreement by the three groups of teachers as to the importance of the guiding statements indicates that even though vocational agriculture teachers had less experience with cooperative programs, they apparently were quite familiar with the basic guidelines that must be followed in planning and conducting these programs. This also indicates that no matter what basic area the training is centered around, whether it be agriculture or distribution, the basic guidelines for planning and conducting the cooperative programs are similar.

The low rating assigned to the importance of utilizing an advisory committee was quite surprising. As can be seen, the rating for this statement was considerably lower than the rating for any of the other statements. This seems difficult to explain since the value of an advisory committee to this type of program has been reaffirmed by numerous persons. However, since almost one-half of the teachers responding did not utilize a committee for their program, this rating may be understandable. The relatively high standard deviation score, plus the fact that the results of the regression analysis showed that the existence of an advisory committee influenced the rating of this guiding statement, would lead one to believe that if the teachers involved would have exerted the effort to establish a committee they would have rated this statement much higher.

The standard deviation score on the guiding statement delaing with the use of written training agreements is also quite high. This would indicate that not all teachers were in agreement as to the degree of importance of written training agreements. They appear to meet with the least amount of favor among the distributive education teachers since this statement was ranked lowest by them.

It seems noteworthy to point out that the guiding statements ranking in the first ten on the mean rating of importance showed a very small range in their scores. In other words, the guiding statements that ranked tenth had a mean score of only about one-tenth of a point lower than the statement with the highest rating. The reader should keep this point in mind. Even though a statement did rank ninth or tenth, it still had a score which was rated very close to the importance assigned the top ranking guiding statement.

It seems noteworthy that the mean rating of the combined groups of teachers was over three for each of the guiding statements. With the exception of the rating on the importance of using written training plans by the distributive education teachers, the same could be said for each individual group of teachers. This rating was very near 3 with a score of 2.97.

Since a rating of three indicated that the statement was of considerable importance and since all the statements received a combined rating higher than this, one may conclude that the guiding statements, as proposed by the writer, are valid and can be used as broad guidelines for teachers to use in planning and conducting cooperative work experience programs.

The validity of the statements identified by the writer can further be supported by the fact that two-thirds of the guiding statements received a rating over 3.5. This would indicate that teachers felt that the guidelines suggested by these statements are of extreme importance in planning and conducting cooperative work experience programs.

Another noteworthy factor evident in Table 1 is the high degree of agreement as to the relative importance assigned to the various statements by the three groups of teachers. The ratings on only two of the guiding statements significantly differed. These statements dealt with student selection procedures and follow-up of students after graduation.

PROCEDURAL ITEMS ASSOCIATED WITH THE GUIDING STATEMENTS

In order for the guidelines to be most useful to teachers and administrators on the local level, activities and procedures were identified to help persons carry out the intent of the guiding statements.

The following is an analysis of the procedural items associated with the guiding statements presented in Table 1. After each of the guiding statements the procedural items which received a mean rating of over 2.5 are listed. The reader will recall that the following importance scale was used. An indication of the rating on all of the items included in the survey instrument can be gained by reviewing the original study.

OF EXTREME IMPORTANCE	OF CONSIDERABLE IMPORTANCE	OF SOME IMPORTANCE	OF LIMITED IMPORTANCE	OF NO IMPORTANCE

1. Guiding Statement: A written local policy statement should be developed to help in administering cooperative work experience.

The statement should include provisions for:

A. Objectives of the program.[a]

B. Responsibility for student safety and liability.

[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

C. Administrative relationships.[a]

D. Selection standards for students.[a]

E. Standards for supervision by the teacher-coordinator.

F. Time and travel allowances for the teacher-coordinator.

G. Age of students to be enrolled.[b]

H. School time provided for on-the-job training.[b]

I. Financing of the program.

J. Content of related instruction.

K. Standards for supervision and instruction by employer.

L. Requirements for student training plans.[a]

M. Length of student on-the-job training period.

N. Standards for facilities and instructional materials.

O. Minimum and maximum size of classes.

P. Length of classroom instruction periods.[b]

Q. Organizing and using an advisory council.

2. Guiding Statement: An advisory committee should be organized to give guidance and direction to the teacher-coordinator.

A. The advisory committee should include representatives of business, labor, and the public.[b]

B. The advisory committee should be involved in determining community situations and needs.

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

C. The advisory committee should be involved in publicizing and promoting the program.

D. The advisory committee should be involved in evaluation of the program.

E. The advisory committee should be involved in developing employment opportunities.

F. The advisory committee should be involved in providing guidance in wage and hour problems.

G. The advisory committee should be involved in conducting a community business survey.

3. Guiding Statement: A survey of the appropriate businesses and firms in the community should be conducted before students are placed in training stations.

The community survey should determine:

A. Willingness of firm to cooperate as a training station.

B. Number of jobs available.

C. The total number of training stations meeting minimum standards.

D. Existence of labor unions or company policies prohibiting the hiring of of student workers.[a]

E. Name of person to contact for future meetings.[a]

F. Number of new positions available five years from now.[b]

G. Names of personnel capable of serving as on-the-job instructors.

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

H. Workmen's compensation and other benefitis available to student workers.[a]

I. Minimum wage available for student workers.

J. Classification of employees (professional, skilled, etc.).[a]

4. Guiding Statement: Systematic and comprehensive efforts should be made to promote the program to students, school personnel, and the public.

A. Individual contacts with students and parents should be used as promotional activities.

B. The teacher-coordinator should assume the major responsibility for promoting the program.[b]

C. Newspaper announcements and stories should be used as promotional activities.

D. Talks to teachers and other school personnel should be used as promotional activities.

E. Talks to civic groups or other organizations should be used as promotional activities.

F. School publications should be used as promotional activities.[b]

G. Letters of appreciation to employers and parents should be used as promotional activities.[a]

H. Recognition certificates to employers and on-the-job instructors should be used as promotional activities.

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

I. Letters to students and parents should be used as promotional activities.

J. School exhibits, tours, and projects should be used as promotional activities.

K. Employer-employee banquets should be used as promotional activities.[b]

L. Free radio or television time should be used as promotional activities.[a]

M. School assembly programs should be used as promotional activities.[b]

N. A section of the school yearbook should be used as a promotional activity.[b]

5. Guiding Statement: A well planned and systematic method of selecting training stations which considers definite standards and criteria should be employed to insure the best possible training environment for the student.

A. When selecting a training station, the employer should have an interest in training the student and appreciate the importance of the program.

B. When selecting a training station, a good employer-employee relationship should exist.

C. A personal contact should be made in the firms which appear to meet the minimum requirements for training stations.

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

D. When selecting a training station, the training station should have a good reputation and be accepted by the community as a reliable, respectable firm.[a]

E. When selecting a training station, the working conditions should be satisfactory, clean, safe, on a par with similar jobs.

F. When selecting a training station, the training station should provide a position which required training--not just a routine work experience of a repetitive nature.

G. When selecting a training station, the establishment should provide the trainee with adequate supervision by an on-the-job instructor.[a]

H. A community survey should be conducted to determine all of the possible training stations.[b]

I. When selecting a training station, the training station should be within a reasonable distance of the school.

J. When selecting a training station, the training station should be capable and willing to provide training throughout the school year.[b]

K. When selecting a training station, the training station should provide training in an occupation approved by the state department.[b]

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

L. When selecting a training station, the training station should be within a reasonable distance of the school.[a]

M. When selecting a training station, the training station should be willing to pay the minimum wage for student workers.[a]

N. When selecting a training station, the training station should offer opportunities for advancement within the establishment.

6. Guiding Statement: The school should have a definite plan for screening and selecting students that conforms to local school policy, satisfies cooperating employers, and meets student needs.[a]

A. The teacher-coordinator should conduct personal interviews with each interested student.[b]

B. In making the final selection of students, students should obtain the approval of the parents for participation.[a]

C. In making the final selection of students, students should be able to get to and from the training station.[a]

D. Interested students should fill out application forms.[b]

E. In making the final selection of students, students should be at least sixteen years old when the on-the-job training begins.[b]

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

F. A general announcement concerning the program should be made to all students.[b]

G. When making the final selection of students, students should have maintained good school attendance records.[a]

H. When making the final selection students, students should be interested in occupations in which adequate training stations are available.

I. The guidance counselor should be consulted in determining capable and qualified students.[b]

J. Personal contact should be made with each student's parents before a final selection is made.[b]

K. Students should be selected during the school year preceding the year the students enroll.[b]

L. Students should be able to work during a portion of the regular school day.[b]

M. In making the final selection of students, students should have a definite occupational objective.[b]

N. Occupational interest and I.Q. tests should be used in making the final selection.

7. Guiding Statement: A concerted effort should be exerted by the teacher-coordinator to insure that the interest of both the student and the employer are considered when a student is placed for employment in a training station.

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

A. The student should be interviewed by the employer before being employed in a training station.[b]

B. Instruction should be given students on applying for a job and employer-employee relations before the student begins working in a training station.[a]

C. The final selection of the student should be made by the employer.

D. The employer should be furnished the names of students interested in the type of jobs available in his training station.

E. The teacher-coordinator should prepare a letter of introduction for the student when he applies for a job at the training station.

F. Students should complete the Labor Department Student Learner Certificates.[b]

G. The employer should be furnished school attendance records, I.Q. scores, and other student information possessed by the school, if he so desires.[b]

H. Students should write a letter of application for the job in which they are interested.[b]

8. Guiding Statement: A written training plan which lists the learning activities the student should engage in at the training station should be developed to serve as a guide to the employer in offering

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

on-the-job instruction and to the teacher-coordinator in planning and teaching related instruction.

A. The training plan should be developed jointly by the teacher-coordinator and the employer.

B. The training plan should provide for rotation among the different skills necessary for the student to become proficient in the occupation.[b]

C. The training plan should contain provisions for keeping a record of the student's on-the-job experiences.

D. A training plan should be developed for each student.

E. All activities considered essential to the occupational training should be included in the training plan with provisions for priority areas indicated.

F. The training plan should list the related instruction that will be provided at school that corresponds to the experiences engaged in on the job.

G. The employer, student, school, and parent should receive a copy of the training plan.[a]

9. Guiding Statement: A written agreement between the school and the employer which lists specific responsibilities of the parties or individuals involved should be developed for students placed in co-operative work experience.

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

A. The training agreement should contain responsibilities of the student, employer, school, and parents.

B. The training agreement should be developed jointly by the teacher-coordinator and the employer.[b]

C. The training agreement should contain provisions for student safety such as insurance, workmen's compensation, etc.[b]

D. The training agreement should contain objectives of cooperative work experience.

E. The training agreement should contain provisions for not employing students when they do not attend or drop out of the related instruction class.

F. The training agreement should contain minimum and maximum hours students are to work per week.

G. The employer, student, school, and parent should receive a copy of the training agreement.[b]

H. The training agreement should contain the date training is to begin and end.

I. The training agreement should be developed and signed before a student is placed in the training station.[b]

J. Minimum and maximum wage students may receive should be included in the training agreement.[b]

10. Guiding Statement: Adequate and appropriate facilities are essential and should be made available in schools conducting vocational cooperative work experience programs.

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[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

A. The classroom where the related instruction is offered should contain moveable tables rather than fixed desks.[b]

B. The teacher-coordinator should have access to a room for small groups and counseling purposes.[b]

C. The classroom where the related instruction is offered should contain movie and slide projection equipment.[a]

D. The teacher-coordinator should be provided a separate office.[b]

E. A separate classroom should be provided for offering related classroom instruction.[b]

F. The classroom where the related instruction is offered should contain display cases and units.[b]

G. The classroom where the related instruction is offered should contain overhead projector.[b]

11. Guiding Statement: The school should provide sufficient instructional materials to supplement the teaching of related classroom instruction and reference material related to the areas of work in which students are being trained.

A. An appropriately coordinated library which provides up-to-date reference material related to the areas of work in which students are being trained should be provided.[b]

B. Books and references should be located in the classroom or adjacent to it.[b]

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

C. A definite budget should be established for purchase of books and reference material.[b]

12. Guiding Statement: The related classroom instruction should be organized and planned so as to provide the information and experience which is not taught on the job and is necessary for students to progress in the various occupations.

A. Related instruction should consist of both individual and group instructional procedures.[b]

B. Related instruction should be organized so material relevant to all students is presented and time is still available to individual instruction in the specific occupations.[a]

C. Related instruction should be based upon individual needs.[b]

13. Guiding Statement: The teacher-coordinator should have an organized and systematic plan for visiting students at their training stations so that related classroom instruction can be correlated with on-the-job training.

A. When making a visit, the teacher-coordinator should determine employer satisfaction.[a]

B. Visits to students should be based upon individual situations.[a]

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

C. The teacher-coordinator should plan his visit so as to avoid rush hours or other congested periods.

D. When making a visit, the teacher-coordinator should discuss the training plan with the on-the-job instructor to determine student progress and needed revisions in on-the-job experiences and related instruction.

E. When making a visit, the teacher-coordinator should observe the student at work.

F. The teacher-coordinator should record his observations made during visits to students at training stations.[a]

G. Conferences with employers should be made away from the student and his work area.

H. The teacher-coordinator should inform employers of visits.[b]

I. The teacher-coordinator should plan a weekly schedule for on-the-job visits in advance.[b]

14. Guiding Statement: Employers should have the responsibility of providing adequate and timely instruction and supervision of the student while they are working in the training station.

A. The on-the-job instructor should have the responsibility of providing the on-the-job experiences listed in the training plan.

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

B. On-the-job instructors should have daily contact with students at the training station.[b]

C. The on-the-job instructor should be freed from some of his regular duties to give him time for providing on-the-job instruction.[b]

D. The on-the-job instructor should be responsible for the actions of the students while working in the training station.[a]

15. Guiding Statement: Certain records and reports should be kept to help insure sound operation of a vocational cooperative work experience program.

A. The teacher-coordinator should be responsible for maintaining records or reports of the employer's rating of student progress.[b]

B. The teacher-coordinator should be responsible for maintaining records or reports of individual training plans and agreements.[b]

C. The teacher-coordinator should be responsible for maintaining records or reports of visitations to students at training stations.

D. The teacher-coordinator should be responsible for maintaining records or reports of placement records of former students.

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

E. The teacher-coordinator should be responsible for maintaining records or reports of individual student earnings and hours worked while enrolled in the program.[b]

16. Guiding Statement: Achievement in both classroom related instruction and performance on the job should be considered in evaluating students.

A. Students should receive high school credit for the work performed at the training station during school hours.[b]

B. Employers should have the responsibility for rating the on-the-job achievement of the students.[b]

C. The teacher-coordinator should supply the employer a rating sheet that lists desirable outcomes rather than letter grades to help them rate student performance.[b]

17. Guiding Statement: The school should maintain an organized system of following up cooperative work experience students after graduation.[a]

A. A record of employment positions and other pertinent information on former students should be maintained by the teacher-coordinator.

B. The teacher-coordinator should help locate employment positions for students after graduation.

18. Guiding Statement: The vocational cooperative work experience program should practice a continuous and planned program of evaluation.

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[a]Significant difference in the ratings among the three groups of teachers at the .05 level of confidence.

[b]Significant difference in the ratings among the three groups of teachers at the .01 level of confidence.

A. A program evaluation should involve present students.

B. A program evaluation should involve employers.

C. A program evaluation should involve former students.

D. A program evaluation should survey the number of students placed in permanent jobs.

E. The program evaluation should survey the types of jobs students are placed in.

F. A program evaluation should involve school administrators.

G. The program evaluation should survey ratings of on-the-job instruction by students and others.

H. The program evaluation should survey ratings of related classroom instruction by students, employers, and others.

I. A program evaluation should involve local businessmen.

J. A program evaluation should involve advisory council.

K. A program evaluation should involve state vocational supervisors.

A more complete analysis of all the procedural items associated with the guiding statements that were included in the survey instrument can be gained by reviewing the original study.

TEACHERS' RATINGS IN REGARD TO THE TIME AND LENGTH OF COOPERATIVE ON-THE-JOB EXPERIENCE

In addition to obtaining a rating of the procedures associated with implementing the guiding statements, the writer desired to obtain a rating from the teachers in the three vocational services concerning the different times to provide cooperative experience and the length of the on-the-job training period. Table 2 presents an analysis of these ratings.

It seems significant that teachers from all the vocational services assigned relatively high ratings to the procedures of providing school time for on-the-job experience. Although the vocational agriculture teachers rated this item significantly lower, they still felt that providing school time for on-the-job experience was "of considerable importance." One can infer from the rating of this procedure and the low ratings assigned the fourth, fifth, and sixth procedure that many schools providing cooperative training in vocational agriculture, who confine on-thejob training to after school hours or Saturdays, should seriously consider making provisions for providing school time for on-the-job training.

Two procedures dealt with the length of the on-the-job training period. It seems noteworthy that requiring students to receive at least 500 hours of on-the-job experience was rated "of considerable importance." This reaffirms the writer's belief that definite

TABLE 2.--Teachers' ratings of the procedures associated with the time and duration of the cooperative work experience

Procedure	Teachers' Mean Rating				Standard Deviation	F
	Distributive[a]	Trade and Industrial[b]	Agriculture[c]	Combined Groups		
1. Should be included as a portion of the regular school day.	3.6	3.9	3.0	3.4	.96	26.6[d]
2. Should include at least 500 hours of actual on-the-job experience.	3.4	3.7	2.4	3.0	1.24	32.1[d]
3. Should be at least six months in duration.	3.0	3.0	2.7	2.8	1.37	13.5[d]
4. Should be required outside school hours and during the summer months.	1.1	1.7	2.2	1.8	1.53	12.0[d]
5. Should be required outside regular school hours only.	.7	.4	1.4	1.0	1.23	20.9[d]
6. Should be required during summer months only.	.3	.4	1.1	.8	1.04	18.8[d]

[a] N = 66

[b] N = 63

[c] N = 132

[d] Significant at the .01 level of confidence.

standards of the on-the-job training period in off-farm agricultural occupations should be set.

The procedure stating that the training period should be at least six months in length also received a relatively high rating. One could infer from this that teachers now limiting the on-the-job training period to the summer months or six week periods should seriously consider lengthening the training period.

PROCEDURES WITH THE MOST SIGNIFICANT DIFFERENCES IN THE TEACHERS' MEAN RATINGS

An indication of the procedures that received the most variability in mean ratings among the three groups of teachers can be gained by reviewing Table 3.

TABLE 3.--Twenty procedures with the most significant difference in the teachers' mean ratings as evidenced by the twenty highest Z scores.

Procedure	Z Score
1. Students should be able to work during a portion of the regular school day.	50.44
2. The classroom should contain a sales counter.	40.54
3. The teacher-coordinator should be provided a separate office.	36.47
4. A separate classroom should be provided for offering related classroom instruction.	35.13
5. An employer-employee banquet should be used to promote the program.	33.51
6. The training station should be capable and willing to provide training throughout the school year.	33.25
7. The classroom should contain a cash register.	25.96
8. Students should be at least sixteen years old when the on-the-job training begins.	25.13

TABLE 3.--Continued

Procedure	Z Score
9. Students should be selected the year preceding the year they enroll.	24.76
10. The classroom should contain laboratory facilities.	21.70
11. A written policy statement should contain provisions for providing school time for on-the-job instruction.	21.16
12. Students should write a letter of application for the job in which they are interested.	20.20
13. A section in the school yearbook should be used to help promote the program.	18.47
14. The teacher-coordinator should keep a record of the employer's rating of student progress.	18.30
15. Interested students should fill out application forms for admission.	17.38
16. Student training agreements should contain provisions for student safety such as workmen's compensation, etc.	16.80
17. The teacher-coordinator should have the major responsibility for promoting the cooperative work experience program.	16.75
18. Students should receive high school credit for work performed at the training station during school hours.	16.39
19. The employer should be furnished with school attendance records, I.Q. scores, and other information the school possesses, if he so desires.	15.77
20. An advisory committee should be appointed and approved by the school board.	15.29

The procedure concerned with providing school time for students to work at the training station had the highest Z score. This high score resulted from the considerably lower rating this procedure was assigned by the vocational agriculture teachers.

The differences in the ratings of the procedures dealing with the facilities and equipment for a cooperative program seem reasonable. The differences in the objectives and teaching procedures of the three programs would reflect in the type of facility and equipment needed. It seems logical, therefore, that teachers would rate the procedures associated with their specific programs higher than would the other teachers.

The other procedures were associated with implementing a variety of the guiding statements. For the most part, it appears that these procedures would be as applicable to one type of vocational cooperative program as to another. The differences in the ratings may be attributed to the lesser experience with cooperative programs possessed by the vocational agriculture teachers. This lack of experience, and the fact that many vocational agriculture programs were in the developmental stage, would have prevented these teachers from utilizing the procedures and recognizing their value.

CONCLUSIONS

The following conclusions, based on the study, were prepared by the investigator:

1. The guiding statements developed in this study are usable and have been rated as being of considerable importance in planning and conducting cooperative work experience programs.

2. The procedures identified by this study are the major activities that should be carried out to implement the guiding statements.

3. The guiding statements are of similar importance regardless of the vocational service in which the training program is provided.

4. Although many of the procedures for implementing the guiding statements are of similar importance regardless of the vocational service providing the training, several procedures have more importance to one service than to another.

5. Although vocational agriculture teachers have limited experience in conducting cooperative work experience programs, they are quite familiar with the basic guidelines that should be followed to properly plan and conduct such a program.

6. Most states have off-farm cooperative vocational agriculture training; however, the programs are limited in number and

student enrollment and, for the most part, are in the developmental stage.

7. There is considerable variation in the nature and characteristics of the vocational agriculture departments that offer cooperative training, particularly in respect to the requirements for the length of the on-the-job training period and the number of hours students work.

8. Certain factors and characteristics influence teachers' ratings of the guiding statements; however, most of these significantly influence only a small number of these statements.

RECOMMENDATIONS

The following recommendations were made to help implement the findings of this study. In preparing these recommendations, the writer was aware that they are not based entirely on the facts and data evolving from this study, but are judgments growing out of his work in this area.

It is recommended:

1. That vocational agriculture departments expand the use of cooperative training as a means of providing occupational experience in off-farm agricultural occupations.

2. That consideration be given to utilizing the guiding statements and procedural items to develop an evaluation device for use by teachers and administrators in evaluating cooperative work experience programs in vocational agriculture.

3. That the guiding statements and procedural items be used for discussion in undergraduate and graduate courses and workshops dealing with occupational experience in off-farm agriculture.

4. That more attention be given in special workshops and in the undergraduate training of teachers to the procedures associated with planning and conducting cooperative work experience.

5. That teachers conducting cooperative work experience programs in vocational agriculture be given ample school time for coordination and supervision.

6. That instructional materials concerning off-farm agricultural occupations be developed to assist teachers in providing specific related instruction.

7. That sample training plans be developed for the major off-farm agricultural occupations.

8. That consideration be given to the adoption of state plan requirements for students concerning the minimum duration and number of hours of actual on-the-job occupational experience to be gained in off-farm agricultural occupations.

9. That schools with vocational agriculture cooperative work experience programs provide school time for students to work in training stations.

10. That state supervisors and teacher educators give increased attention to informing teachers of the need and value of advisory committees and written policy statements in helping administer a cooperative work experience program.

11. That state plans in vocational agriculture be revised to take into consideration the special nature and characteristics of the vocational agriculture programs providing cooperative work experience in off-farm agriculture.

RECOMMENDATIONS FOR FURTHER STUDY

During the conduct of the study the writer became aware of the need for further study in areas related to this study. Following are some areas needing additional research:

1. To obtain the opinions of school administrators and employers concerning the guiding statements and procedures identified in this study.

2. To determine possible curriculum patterns for providing occupational training in off-farm agricultural occupations.

3. To develop procedures for organizing and conducting combination programs providing cooperative training in vocational agriculture and one or more other vocational service.

4. To develop procedures for evaluating occupational experience in off-farm agriculture.

5. To determine methods of offering specific related instruction when students are placed in various occupational areas.

6. To further perfect the guiding statements and identify additional procedural items for their implementation.

7. To determine other factors which may influence teachers' ratings of the guiding statements.

8. To determine methods of providing in-service education to teachers conducting cooperative programs in vocational agriculture.

9. To determine the most adequate number of hours of on-the-job occupational experience needed in the major off-farm agricultural occupations.

10. To repeat this study in five years to determine if the increased experience gained by vocational agriculture teachers will change their opinions as to the importance of the guiding statements and procedural items.

BIBLIOGRAPHY

BIBLIOGRAPHY

Books

Best, John W. Research in Education. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1959.

Blalock, Hubert M. Social Statistics. New York: McGraw-Hill Book Company, Inc., 1960.

Castetter, William B. Administering the School Personnel Program. New York: The MacMillan Company, 1962.

Dornbusch, Sanford M., and Schmid, Calvin F. A Primer of Social Statistics. New York: McGraw-Hill Book Company, Inc., 1955.

Good, Carter V. Dictionary of Education. New York: McGraw-Hill Book Company, Inc., 1959.

Good, Carter V., and Scates, Douglas E. Methods of Research. New York: Appleton-Century-Crafts, Inc., 1954.

Hamlin, Herbert M. Citizens Committees in the Public Schools. Danville, Illinois: The Interstate Printing Company, 1952.

_____. Public School Education in Agriculture--A Guide to Policy and Policy Making. Danville, Illinois: The Interstate Printers and Publishers, Inc., 1962.

Harris, Chester W. (ed.). Encyclopedia of Educational Research. 3d ed. New York: The MacMillan Company, 1960.

Hillway, Tyrus. Introduction to Research. Boston: Houghton-Mifflin Company, 1956.

Ivins, Wilson H., and Runge, William B. Work Experience in High School. New York: The Ronald Press Company, 1951.

Mason, Ralph E. Methods of Distributive Education. Danville, Illinois: The Interstate Printers and Publishers, Inc., 1964.

Mason, Ralph E., and Haines, Peter G. Cooperative Occupational Education and Work Experience in the Curriculum. Danville, Illinois: The Interstate Printers and Publishers, Inc., 1965.

McCloskey, Gordon. Education and Public Understanding. New York: Harper and Brothers, 1959.

Rakestraw, C. E. Training High School Youth for Employment. Chicago: American Technical Society, 1951.

Snedecor, George W. Statistical Methods. Ames, Iowa: The Iowa State College Press, 1956.

Symonds, Percival M. Diagnosing Personality and Conduct. New York: D. Appleton Century Company, Inc., 1931.

Zeran, Franklin R. Life Adjustment Education in Action. New York: Chartwell House, Inc., 1953.

Public Documents

Bureau of Business and Distributive Education. Cooperative Work Experience for Business and Distributive Education. Albany, New York: The University of the State of New York, State Education Department, 1965.

Bureau of Trade and Technical Education. Vocational Industrial Cooperative Programs--A Handbook for Teacher Coordinators. Albany, New York: The University of the State of New York, State Education Department, 1960.

Committee on Research and Publications. Definitions of Terms in Vocational and Practical Arts Education. Washington: American Vocational Association, 1954.

Committee on Research and Publications. Vocational Advisory Committees. Washington: American Vocational Association, 1960.

Distributive Education Service. Distributive Education Classroom Lay-Outs. Columbus, Ohio: State Department of Education.

Hamlin, Herbert M. Citizen Participation in Local Policy Making for Public Education. Urbana, Illinois: University of Illinois, College of Education, 1963.

Hunt, Dewitt. Work Experience in American Secondary Schools. (Bulletin 1957, No. 5.) Washington: U. S. Department of Health, Education, and Welfare, 1957.

Kohrman, George E. An Analysis of the Activities, Training, and Opinions of Coordinators of Cooperative Programs. (University of Missouri Bulletin, Vol. 54, No. 33.) Columbia, Missouri: University of Missouri, Department of Industrial Education, 1953.

Linson, Marvin G. and Anderson, Harold. Handbook for Developing and Operating Agricultural Occupations Programs. Denver, Colorado: Colorado State Board for Vocational Education, 1964.

U. S. Department of Health, Education, and Welfare. Post-High School Cooperative Programs. (Vocational Division Bulletin No. 283, Distributive Education Series No. 29.) Washington: Government Printing Office, 1960.

_____. A Review of Activities in Federally Aided Programs. Washington: Government Printing Office, 1964.

U. S. Department of Health, Education, and Welfare. Summary of Studies in Agricultural Education. (Vocational Division Bulletin No. 180 and the 16 Supplements.) Washington: Government Printing Office.

U. S. Public Law 88-210.

State Department of Education. Cooperative Part-Time Training for the Distributive Occupations. (Business Education Publication No. 107.) Sacramento, California: State Department of Education.

State Department of Education. Diversified Part-Time Training. (State Department of Education Bulletin No. 399.) Austin, Texas: State Department of Education, 1939.

Vocational Industrial Education Division. Industrial Cooperative Training--A Handbook for Industrial Cooperative Teacher-Coordinators. Austin, Texas: Texas Education Agency, 1965.

Way, Darrel. Supervised Training for Agricultural Employment. Little Rock, Arkansas: Arkansas State Department of Education, Division of Vocational Agriculture, 1964.

Articles and Periodicals

Beaumont, John A. "Cooperative Education," Business Education Yearbook, X (1953), pp. 388-92.

Bieber, Anna W. "A Placement Program," Journal of Business Education, XXIX (October, 1953), pp. 13-14.

Bikkie, James A. "Better Instructors On The Job," Business Education Forum, XVII (April, 1963), pp. 14-15.

Borland, Helen B. "The Business Community as a Business Education Workshop," Business Education Yearbook, X (1953), pp. 359-65.

Coghlan, Beth. "How to Work More Effectively With the Business Community," Business Education Forum, XII (March, 1958), p. 33.

Cohen, Sanford, and Pyle, William C. "Problems in Diversified Cooperative Education," Industrial Arts and Vocational Education, LII (September, 1963), pp. 22-23.

Cottrell, Jonathan. "Recruitment of Training Stations," Business Education Forum, XVII (December, 1962), p. 22.

Cunningham, Rex. "Ohio Seniors Given Work Experience in Farm Related Occupations," Agricultural Education Magazine, XXXVI (August, 1963), pp. 44-45.

Daughtery, Ann Scott. "Guidance in Work Experience Programs," Business Education Forum, XII (January, 1958), pp. 14-16.

Eddy, Max. "Related Instruction: Direct or General?" School Shop, XXI (October, 1961), p. 15.

Fuller, Gerald. "Guidelines for Teaching OFAO," Agricultural Education Magazine, XXXVII (January, 1965), pp. 167-68.

Goldstein, Gerald D. "Job Retention Among Cooperative Course Pupils," High Points, XLIV (November, 1962), pp. 67-68.

Hackett, Beverly. "Let the Employer Be A Teaching Colleague," Balance Sheet, XLV (March, 1964), pp. 298-99.

Hampton, Robert E. "The Work Experience Training Program--Its Need, Its Promotion, and Its Establishment," Balance Sheet, XXXVII (November, 1955), pp. 102-8.

Hurt, Mary Lee. "Education for the World of Work--A Team Approach," Educational Leadership, XXII (January, 1965), pp. 221-25.

Klaurens, Mary. "Career Development on the Distributive Job," Business Education Forum, XVI (April, 1962), pp. 14-15.

Kozelka, Robert F. "Resolved: Cooperative Education is Best," Teachers College Journal, XXXVI (November, 1964), pp. 73-76.

Krawitz, Myron. "Cooperative Work Experience Problems Can Be Solved," Business Education World, XXXIX (October, 1957), p. 33.

Logan, William B. "Good Co-Worker Relations on the Job," Business Education Forum, XVII (April, 1963), p. 15.

Marks, Mary V. "Improving Occupational Experiences Through: Coordinated Classroom Experiences," Business Education Forum, XVII (April, 1963), pp. 5-7.

Mason, Ralph E. "Effective Business Education Programs," Business Education Forum, XVI (February, 1962), p. 21.

Meyer, Warren G. "Improving Occupational Experience," Business Education Forum, XVII (April, 1963), p. 3.

Meyer, Warren G., and Levendowski, J. C. "Enlisting Counselor Support," Business Education Forum, XVII (April, 1963), pp. 9-11.

Murray, Evelyn. "Work: A Neglected Resource for Students," The Personnel and Guidance Journal, XLI (November, 1963), pp. 229-33.

Norenberg, Curtis. "Vocational Agriculture Departments Need Written Policy Statements," Agricultural Education Magazine, XXXVII (January, 1965), p. 181.

Parkes, George H. "A Work Experience Program," American School Board Journal, CXXVIII (April, 1954), pp. 34-35.

Ray, Keith. "What A Complete Work Experience Program Involves," Business Education World, XLII (September, 1962), pp. 18-22.

Reeve, Claudia L. "Work Study Programs: An Integral and Revitalizing Part of the High School Curriculum," Journal of Secondary Education, XXIX (January, 1964), pp. 38-42.

Richman, Sol. "Because Experience Can't Be Taught," New York State Education, L (March, 1963), pp. 18-20.

Roman, John C. "What Business Teachers Should Learn From a Follow-Up Study," Business Education Forum, XIV (December, 1959), pp. 17-19.

Rowe, Kenneth L. "Making the Trainee More Responsible for His Training," Business Education Forum, XVII (April, 1963), pp. 12-13.

Sampson, Harland E. "Coordination Practices and the Discipline of Distribution," Business Education Forum, XIV (April, 1960), pp. 9-11.

Savitzky, Charles. "Work Experience Programs for Potential Dropouts," National Association of Secondary School Principals Bulletin, XLVI (November, 1962), pp. 53-59.

Scott, Wesley E. "How Schools Promote Good Public Relations in the Business Community," Business Education Forum, XIV (November, 1959), p. 21.

Sheafer, Chet. "Sponsor Development in D. E.," American Vocational Journal, XXXIX (September, 1964), pp. 34-35.

Smith, Robert H. "Distributive Education Coordination Integrates Several Factors," Business Education Forum, XIV (December, 1959), p. 25.

Smultz, Frances. "Cooperative Work Programs for Secondary School Students," Business Education Forum, XVI (February, 1962), p. 15.

Stranger, Norman R. "A New Slant on Using Trade Advisory Committees," American Vocational Journal, XXXVIII (April, 1963), pp. 29-30.

Sullards, George F. "Arkansas Teaches for Off-Farm Agricultural Occupations," Agricultural Education Magazine, XXXVII (January, 1965), p. 163.

Thorne, Marian. "Maximum Benefits from the Cooperative Work Experience Program," Journal of Business Education, XXXIX (May, 1964), pp. 327-29.

Tyler, Ralph W., and Mills, Annice L. "What is Cooperative Education?" Education Digest, XXVII (December, 1961), pp. 38-39.

Wasser, Paul D. "Kankakee's Diversified Occupations Program Works for Everybody," Industrial Arts and Vocational Education, LIV (February, 1965), pp. 32-33.

Unpublished Material

Bail, Joe P. "Follow-Up Study of Former Students in Vocational Agriculture 1949-58, in New York State." Agricultural Education Division, Cornell University, 1959. (Mimeographed.)

Kennedy, William Henry. "A Clarification of Relationships Between Farming and Certain Other Agricultural Occupations With Implications for Guidance and Curriculum Development." Unpublished Ed.D. Dissertation, Michigan State University, 1958.

Logan, William B. "Criteria for Evaluating a State-Wide In-School Distributive Education Program." Unpublished Ph.D. Dissertation, The Ohio State University, 1952.

Royster, Ralph R. "Analysis of Off-Farm Agricultural Occupations of Boys Having Training in Vocational Agriculture from Selected Counties in Indiana." Unpublished Ed.D. Dissertation, University of Missouri, 1959.

Perkins, Edward C. "A Follow-Up of 1,030 Former Vocational Agriculture Students in Vermont." Agricultural Education Department, University of Vermont, 1958. (Mimeographed.)

Wilson, John Minton. "An Occupational Survey of Former Vocational Agriculture Students of High Schools in the Wheat Area of Washington State." Unpublished Master's Thesis, Washington State University, 1961.

Other Sources

The Ohio State University. Conferences with Dr. D. Ransom Whitney, Director, Numberical Computations Laboratory, September, 1965.

Uncited References

Books

Christensen, Thomas E. Work Experience--Preparation for Your Career. Chicago: Science Research Associates, 1947.

Cocking, Walter D., et al. Work Experience. New York: Hinds, Hayden, and Eldredge, Inc., 1945.

Dillon, Harold J. Work Experience in Secondary Education. New York: National Child Labor Committee, 1946.

Gold, Milton S. Working to Learn. New York: Bureau of Publications, Teachers College, Columbia University, 1951.

Articles and Periodicals

Baldwin, Leland P. "Work Experience Education," The Balance Sheet, XXXIX (April, 1958), pp. 352-53.

Bigler, George. "All for Work Experience," Business Education Forum, XVI (May, 1962), p. 32.

Bradford, Eugene J. "How to Get Scientific Help From Industry," School Management, V (September, 1961), pp. 93-95.

Dent, James, and Wright, Milan. "Expertness in Preparing Youth for Employment: The Program," Journal of Secondary Education, XXXVIII (February, 1963), pp. 116-21.

Dull, Lloyd. "Work Experience Accelerates Growth for Commercial Students," Ohio Schools, XXXVI (January, 1958), pp. 22-23.

Eisen, Norman B. "The Guidance Tool Called Work Experience Education," Journal of Secondary Education, XXXIX (December, 1964), pp. 372-75.

England, Frederick. "Double E.--Educational Employment Program," Journal of Business Education, XXXVIII (April, 1963), pp. 283-84.

Funk, J. C. and Windle, Albert G. "Cooperative Planning," American Vocational Journal, XXX (October, 1955), pp. 21-22.

Gratz, Jerre E. "An Advisory Committee Links School and Business," Business Education World, XXXVIII (September, 1957), p. 30.

_____. "The Business of Advisory Committees," American Vocational Journal, XXXII (December, 1957), p. 22.

Griffin, Warren L. "Agricultural Workers Needed in Missouri," Agricultural Education Magazine, XXXVII (August, 1964), p. 53.

Hallstrom, Ronald W. "Try an Advisory Committee," Business Education Forum, XVII (December, 1962), p. 17.

Hedsh, Norman D. "Illinois Students Interpret the Cooperative Program," The Balance Sheet, XXXIX (September, 1957), p. 16.

Holt, Ivin L. "The Case of the Advisory Committee," Industrial Arts And Vocational Education, LIV (February, 1965), p. 31.

Knox, Ruby B. "Survey Local Businesses," The Balance Sheet, XLIII (February, 1962), p. 244.

Low, Alice L. "Work Experience and Community Relationship," The Balance Sheet, XXXVII (September, 1955), pp. 58-61.

Macomber, Glenn F., and Ayars, Albert L. "Home Town Becomes a Classroom," The School Executive, LXXIV (August, 1955), pp. 41-45.

Martin, J. A. "Work Experience," Journal of Business Education, XXXII (April, 1957), pp. 299-300.

Mason, Ralph E. "Effective Cooperative Business Education Programs," Business Education Forum, XVI (March, 1962), pp. 30-31.

McComas, J. D. "Teacher Tasks in Agricultural Occupations," Agricultural Education Magazine, XXXVII (January, 1965), p. 164.

Probst, George E. "Cooperative Education is First Rate Education," The PTA Magazine, LVIII (November, 1963), p. 26-28.

Reiterman, Milton F. "Partnerships in Training," California Education, II (March, 1965), pp. 11-12.

Shoemaker, Byrl R. "Learning, Earning, and Saving Through the DCT Program," Ohio Schools, XXXI (October, 1953), pp. 322-23.

Weisbrod, Henry. "Business Education and Public Relations," Wisconsin Journal of Education, LXXXVI (November, 1953), pp. 17-18.

White, James B. "The Facts About Work Experience Programs," American Vocational Journal, XXXIV (October, 1959), pp. 18-19.

White, L. T. "The Businessman and Distributive Education," American Vocational Journal, XXXVIII (February, 1963), p. 23.

Wrage, John. "Why Industry Conducts Its Own Training Programs," American Vocational Journal, XXXVIII (April, 1963), p. 15.

Zarella, Dorothy R. "Cooperative Work Experience for Office Students," Journal of Business Education, XXXVII (March, 1962), pp. 229-30.

Zockle, M. A. "A First in State Authorized Co-Op Programs," Ohio Schools, XLI (December, 1963), p. 18.

Unpublished Material

Griffin, Joe T. "Some Attitudes and Opinions on Attempting to Teach Related Occupations to Students in Vocational Agriculture." Unpublished Master's Thesis, North Carolina State College, 1959.

Jones, Robert C. "Determining the Training Needs for Selected Agricultural Occupations in Massachusetts and the Role of Vocational Agriculture in Meeting These Needs." Unpublished Ed.D. Thesis, Cornell University, 1960.

Schibler, Herman. "Cooperative Vocational Education in the Public High School." Unpublished Ph.D. Dissertation, The Ohio State University, 1941.